

Appl. No. 10/717,873
Response dated September 8, 2006
Reply to Office Action of July 12, 2006

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REMARKS

Claims 1-13 are pending in the application. Claims 1-13 stand finally rejected. Claims 1, 3-5, 10-11 and 13 stand finally rejected under 35 U.S.C. § 103(a) as being unpatentable over GB 1087801 (Sheller) in view of US 5,710,184 (Burns). Claims 2 and 9 stand finally rejected under 35 U.S.C. § 103(a) as being unpatentable over Sheller in view of Burns and WO96/28378 (DeWar). Claims 6-8 stand finally rejected under 35 U.S.C. 103(a) as being unpatentable over Sheller in view of Burns and U.S. 5,002,989 (Naumovitz). Claim 12 stands finally rejected under 35 U.S.C. § 103(a) as being unpatentable over Sheller in view of Burns and JP49113839 (Nippon).

In making his previous rejection final, the Office did not address or acknowledge amendment of Claim 1 in the response of April 26, 2006. Claim 1, upon which all other claims are dependent, was amended to explicitly state a physical structural characteristic of the coating that was previously implicit.

Applicant's claimed invention is a *synthetic cork closure for a liquid container* having at least a portion thereof coated with a gas impermeable polymer. Claim 1 states that the coating penetrates beyond the surface of the cork to an extent observable by light microscope.

Applicant consistently uses the term "synthetic cork closures" in the disclosure and description of the field of invention as "to synthetic cork closures for liquid containers and to processes for making such closures." It is clear that Applicant's disclosure and claims clearly and consistently use the term "synthetic cork closure" to refer to a cork or stopper-like structure (shape) further defined in the specification, especially at page 2, lines 1-6. Applicant's invention is not just any "closure" or any closure made from a synthetic composition.

The Office maintains in the "Response to Arguments" in the Office Action of July 12, 2006, that unspecified "evidence of record suggests said limitation should be interpreted as a compositional limitation and not a structural limitation." Applicant respectfully requests that the Examiner point out what "evidence of record" shows supports his interpretation. **The courts consistently refer to the specification to determine meaning of words in claims:**

Where there are several common meanings for a claim term, the patent disclosure serves to point away from the improper meanings and toward the proper meaning. *Inverness Med. Switz. GmbH v. Princeton Biomeditech Corp.*, 309 F.3d 1365, 1370; 64 U.S.P.Q.2d (BNA) 1926 (Fed. Cir. 2002)

Thus, the specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term. Moreover, any definition found in or ascertained by a reading of the intrinsic evidence may not be contradicted by any meaning found in dictionaries or technical treatises. *Virtronics Corp. v. Conceptoronic, Inc.*, 90 F.3d at 1582 and 1584 n.6, 39 U.S.P.Q.2d (BNA) at 1577 and 1578 n.6 (Fed. Cir. 1996) as cited with approval by *Dow Chem. Co. v. Sumitomo Chem. Co.*, 257 F.3d 1364 at 1373 59 U.S.P.Q.2d (BNA) 1609 (Fed. Cir. 2001).

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The interpretation from Applicant's Specification is that the term "synthetic cork closure" means a closure for a liquid container which has a structure somewhat like a stopper or bottle cork. The Examiner "respectfully disagrees" based on one line taken out of context from one of several patents incorporated by reference in Applicant's Specification. The Examiner argued that US 5,855,287 "teaches that the cork may be molded to have any desired shape and size." (Final Rejection of July 12, 2006, page 5, middle of second paragraph). Applicant is unable to find such a statement in the reference. The closest Applicant can find is column 3, lines 15-21 of US 5,855,287:

In one aspect of the present invention, there is provided a molded closure for liquid containers that can function as a suitable replacement for a natural cork, wherein it is possible to control the size, shape, surface texture, surface lubricity, resilience, elasticity, density distribution and aesthetic appearance of the molded closure.

While size and shape may vary, the context is clearly not "any" size or shape, it is a size and shape for a molded closure to replace a natural cork (stopper) in closing a liquid container. In US 5,855,287, column 6, lines 36-37 say, "The mold has a desired shape, which preferably is the shape of a wine cork." Even the title is "Synthetic Closure for Removable Insertion into a Wine Bottle." There is one drawing, that of a typical wine cork. There is no doubt that in context the shape that is controlled is that of a cork-shaped object. There is a very detailed description of the shape in Column 2, lines 50-67 speaking of variations in size and texture, also saying it is to be readily inserted using common bottling equipment and easily removed using a corkscrew. **EVERY INDICATION in US 5,855,287 OF SHAPE IS THAT OF A WINE BOTTLE CORK.** The quoted sentence at column 3, lines 15-21 clearly refers to controlling the size and shape of a wine bottle cork, not achieving "any size and shape."

It is important, too, to review the context of that reference in Applicant's Specification. The very first sentence of the detailed description of Applicant's invention says, "The synthetic cork closures which can be employed in the practice of the present invention include the synthetic closures described in U.S. Patents 5,975,322, 5,904,965, 5,855,287, 5,710,184, 5,496,862 and 4,363,849, incorporated herein by reference." The titles of these documents reveal the types of closures to which Applicant's invention is addressed:

US5975322 Wine Bottle Closure with Threads

US5904965 Synthetic Closure (claims "A stopper or closure for a fluid product retaining container constructed for being inserted and securely retained in a portal forming neck of the container...")

US5855287 Synthetic Closure for Removable Insertion into a Wine Bottle

US5710184 Molded Styrene Block Copolymer Closure For A Liquid Container (reveals throughout, including the drawing, that it is directed to closures for liquid containers that can be fitted into the necks of containers, e.g. wine bottles)

US5496862 Molded Styrene Block Copolymer Closure for a Wine Container

US4363849 Foamed Thermoplastic Resin Cork Having a Natural Cork-Like Appearance and a Method of Injection Molding the Cork

Thus, the term "synthetic cork closure" is used in Applicant's claims because it covers somewhat more than the standard frustoconical stopper sometimes referred to as a "cork," for instance closures that also cover the lip of a liquid container and/or

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optionally have threads. They all generally involve closing bottles in a cork-like manner, that is, at least partially filling the neck of a bottle. This is clearly the context and meaning throughout the Application.

Furthermore, Applicant uses the term "synthetic cork closure" no fewer than 11 times in the 11 pages preceding the claims in Applicant's Specification and uses the shorter term "synthetic cork" or "synthetic corks" no fewer than an additional 11 times. Every time, the shorthand "synthetic closure" or "cork closure" it refers back to a "synthetic cork closure." The very fact that the term "synthetic cork closures" is shortened to "synthetic corks" shows that cork is used in its structural sense as a short term for a type of closure rather than the type of composition from which any structure of closure could be made. In every sentence using the term "synthetic cork(s)" or "synthetic cork closure" the structural interpretation makes sense, but many times the Examiner's "compositional" interpretation clearly does not make sense. Page 1, lines 7-9 discloses that "Synthetic corks ... are formed using either a profile extrusion method or injection molding or may be punched out of a sheet." These methods give *STRUCTURAL, not COMPOSITIONAL limitations*. Page 5, lines 17 and 22 speak of plural "synthetic corks" but lines 19-22 make it clear that there is but one composition. Again on page 7, lines 7-10, corks, including synthetic corks are inserted into wine bottles. On page 4, line 20, "both ends" are spoken of. On page inserted, it has "a free end." On page 10, line 3, the phrase "sides of the synthetic cork" is used. On page 10, line 12, the phrase is "exposed top of the cork." **Structures, not compositions, have sides, ends, a free end, an exposed top.** The term "cork" is consistently used structurally in Applicant's Specification, which is dispositive of the issue of which definition to choose in claim interpretation.

Applicant respectfully notes that Applicant has previously in the course of prosecuting this application submitted definitions of emulsion, solution, solvent, solution, miscible, immiscible, colloid heterogeneous mixture, homogeneous mixture, plasticizer, and thixotropy. Those definitions are of record and need not be submitted again.

2. Claims 1, 3-5, 10, 11, and 13 stand rejected under 35 U.S.C. § 103 as unpatentable over GB 1087801 (Sheller) in view of US 5,710,184 (Burns).

Sheller discloses natural cork (bark) gaskets treated to enable them to withstand temperatures and pressures. Beginning at page 1, line 11, Sheller states, "This invention relates to cork gaskets..." Further, page 1, lines 52-56, Sheller plainly states, "These gaskets conventionally are fabricated from sized cork particles which may be mixed with one or more types of filler substances in particle or liquid form and held together in sheet form by a binding agent." In lines 14-15 of page 1, Sheller explains, "Cork gaskets are primarily used to provide an effective seal between confronting faces of adjacent elements when positioned therebetween..." Further, at page 1, lines 25-35, Sheller explains the problem solved by treating his gaskets made of natural cork, "modern day applications require that these cork gaskets be able to withstand relatively high temperatures and pressures and have a good oil and grease resistance. Often the fluid pressures and temperatures existing in modern processes quite exceed those against which untreated cork would be effective. In addition, the

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detergent substances in present day lubricating oils tend to attack and pass or escape through untreated gaskets." Sheller describes the coating for his natural cork gaskets as "an emulsion of an acrylic-modified vinylidene chloride copolymer." See page 1, lines 39-40, page 1 line 90-page 2, line 1 and page 2, lines 21-22. One such emulsion is said to be Rhoplex R-9 (then) manufactured by Rohm and Haas Company. See page 2, lines 3-4. Sheller teaches very specifically, at page 1, lines 82-84, "It is important that the gaskets be completely covered with this emulsion. This may require several coats of the liquid emulsion..."

The fact that Sheller coats a natural cork (composition) gasket with a substance that improves the gasket's resistance to fluid pressures and temperatures in modern machinery, even combined with the fact that someone else (Burns) later made a plastic cork for a wine bottle, does not make coated plastic bottle corks obvious.

For the first time in this final rejection, the Examiner cited US6,235,822 on plastic gaskets made of a particular polymer composition, stating "gaskets are understood to read on materials utilized to seal liquid containers." First, Applicants respectfully request that the final nature of this office action be withdrawn because this is the first citation of this reference and this reference is the first attempt to show a relationship between gaskets and wine corks. Second, Applicant's note that this reference is not and is not even asserted to be legally combinable with any reference cited. Instead, an isolated statement applicable only to the invention represented in US6,235,822 is taken as quasi definitional. This is an improper use of a patent when the term "gasket" is defined in many dictionaries and has a meaning clear from Sheller. Third, Applicants note that the phrase seized upon by the Examiner, is taken out of context. US6,235,822 column 1, Field of Invention, as cited by the Examiner, begins with "This invention relates to polymer compositions with enhanced surface properties." Then after at least 6 more aspects of the invention, the paragraph concludes:

The gaskets are capable of compression sealing various containers, without contaminating the contents. Liquid containers particularly benefit from the use of the novel gasket materials disclosed herein.

This paragraph must, like all isolated statements in documents, be taken in context. In column 14, lines 38-58, US6,235,822 states

Suitable end uses include gaskets for metal and plastic closures, as well as other gasket applications. These applications include beverage cap liners, hot fill juice cap liners, polypropylene cap liners, steel or aluminum cap liners, high density polyethylene cap liners, window glass gaskets...

Thus, when the field of invention speaks of liquid containers particularly benefiting from use of the novel gasket materials, it refers, indeed, to traditional gaskets like cap liners, rings used in canning, and the like, NOT as complete closures.

In spite of the Office's allegation that synthetic cork (interpreted compositionally) and natural cork (composition) are in the same field of endeavor, the teachings of Sheller are not in the same field of endeavor as Applicant's claimed invention or Burns. Sheller states clearly that the teachings therein apply to gaskets, natural cork gaskets in

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machinery. Gaskets and closures for liquid containers such as wine bottles are not in the same field of endeavor. The ONLY thing the two have in common is the word "cork" but used for two completely different meanings.

Thus, the teachings of Sheller remain not logically applicable to the present invention. Sheller is in a different field of art and addresses totally different problems. Sheller tells us in his title and in both the sentences having phrases on page 1, line 25 that he is teaching about gaskets. Applicant's invention relates to synthetic cork (structure/shape) closures for liquid containers. The problem with such closures is "permeation of gases in and out of the cork and the scalping of flavors caused by the polymers used."

Application, page 1, lines 13-15. There are differences in

Subject matter: synthetic closures having a corklike shape, said closures being for containers of liquid v. gaskets for machinery made of natural cork (bark)

Material: synthetic (plastic, polymeric) v. natural cork (the bark of a tree)

Environment: containers of liquid, e.g. bottles of wine v. machinery with heat and pressure as described by Sheller

Problems to be solved: Synthetic closures for liquid containers, while solving some problems of natural corks used to close liquid containers, have the problem of "uncontrolled permeation of gases in and out of the cork and the scalping of flavors caused by the polymers used." See Applicant's Specification, page 1, lines 13-15. Sheller's problem is that of natural cork gaskets needing to withstand relatively high pressures and temperatures as well as detergents and lubricants, e.g. "between confronting faces of adjacent elements" of machines.

Sheller, page 1, lines 26-29 and 50-52.

Thus, the teachings of Sheller do not logically apply to Applicant's synthetic cork (structure) closures or to other bottle stoppers, e.g. those of Burns.

Applicant acknowledges that the Examiner respectfully disagrees with the structural interpretation of the word "cork" in Applicant's claims, but the Examiner's interpretation of it as "compositional" has been refuted previously in these arguments. Applicant's Specification is consistent and unmistakable, therefore dispositive.

As the Court of Appeals has said, while the Office must give the claims their broadest reasonable interpretation, the interpretation must be consistent with what one skilled in the art would understand. In other words there are at least 2 limits on breadth of interpretation, (1) reasonableness and (2) what one skilled in the art would understand. See the explanation in In re Cortright, 165 F.3d 1353, 1358, 49 U.S.P.Q.2d 1464 (Fed. Cir. 1999):

Although the PTO must give claims their broadest reasonable interpretation, this interpretation must be consistent with the one that those skilled in the art would reach. See In re Morris, 127 F.3d 1048, 1054, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997)

One skilled in the art would understand the Specification to refer to something very different from a gasket suitable for use in a hot, oily machine.

In contradiction to Sheller's unequivocal teaching, the Office maintains that "The teachings of Sheller may be utilized in any environment wherein cork gaskets have been

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used to prevent the passage of vapor and/or fluid." (Office Action of July 12, 2006, page 8) Sheller teaches "Cork gaskets are primarily used to provide an effective seal between confronting faces of adjacent elements when positioned therebetween..." and the problem solved by treating his gaskets made of natural cork is "modern day applications require that these cork gaskets be able to withstand relatively high temperatures and pressures and have a good oil and grease resistance." Applicant respectfully requests the basis for the Office's assertion. The Office is reminded that all the teachings of a reference MUST BE TAKEN TOGETHER IN CONTEXT.

We must approach the issue of patentability in terms of what would have been obvious to one of ordinary skill in the art at time invention was made in view of the sum of all relevant teachings in the art, not in view of first one and then another of the isolated teachings in the art. We must consider the entirety of the disclosure made by the references, and avoid combining them indiscriminately. (citations omitted) *In re Ehrreich*, 200 USPQ 504; 590 F.2d 9024, 9029 (CCPA 1979).

We agree with Hedges that the prior art as a whole must be considered. The teachings are to be viewed as they would have been viewed by one of ordinary skill. (citations omitted) "It is impermissible within the framework of section 103 to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art." *In re Hedges*, 228 USPQ 685, 687 (Fed. Cir. 1986).

On page 2 of the Office Action of July 12, 2006, the Examiner asserts without basis that the coating used by Sheller is "understood to inherently meet the light microscope limitations of Claim 1." The coating taught by Sheller is an emulsion not dissolved in a solvent as required by Applicant's claims. No reason is given for the assertion that an emulsion with its undissolved domains of "acrylic modified vinylidene chloride copolymer" would penetrate like a polymer solution. This is not an instance where Applicant can be expected to compare Applicant's claimed invention to the cited art, because Applicant's efforts to obtain "acrylic modified vinylidene chloride copolymer" or ascertain its composition have been to no avail. The Examiner has declined to assist in identifying it, maintaining that the rejection does not rely on the identity of this substance. (See Office Action of July 12, 2006, page 5.) In so far as comparison would be needed to refute the Examiner's assertions identifying it is essential. Thus, not only is the assertion unfounded, thus improper, it carries the reference beyond that which case law permits for a reference that is not enabled.

{A} reference that lacks enabling disclosure is not anticipating, but "itself may qualify as a prior art reference under § 103, but only for what is disclosed in it. (citation omitted, emphasis added)
Symbol Technologies, Inc. v. Opticon, Inc., 935 F.2d 1569, 1578 (Fed. Cir. 1991).

The Supreme Court announced the standard for finding communication of a prior conception over 125 years ago in *Agawam Woolen v. Jordan*, 74 U.S. (7 Wall.) 583, 19 L. Ed. 177 (1868). The Court required a showing that the communication "enabled an ordinary mechanic, without the exercise of any ingenuity and special skill on his part, to construct and put the improvement in successful operation." *Id.* at 602-03. This court's predecessor consistently applied this Supreme Court standard. See, e.g., *Hedgewick v. Akers*, 497 F.2d 905, 908, 182 USPQ. 167, 169 (CCPA 1974) ("Communication of a complete conception must be sufficient to enable one of

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ordinary skill in the art to construct and successfully operate the invention."); *DeGroff v. Roth*, 56 C.C.P.A. 1331, 412 F.2d 1401, 1405, 162 USPQ. 361, 365 (CCPA 1969). *Gambro Lundia AB v. Baxter Healthcare Corp.*, 42 U.S.P.Q.2d 1378; 110 F.3d 1573, 1577 (Fed. Cir. 1997).

Burns teaches the manufacture of certain synthetic cork closures for liquid containers where a thermoplastic elastomer (TPE) exemplified by a styrene block copolymer (column 4, lines 6-39) and a blowing agent are molded such that a skin is formed (column 1, line 65 through column 2, line 2). The resulting synthetic stopper is said to offer high resistance to oxygen permeation and produce little or no product tainting. (Column 2, lines 34-35) It is described further as "able to prevent passage of oxygen from the atmosphere to the wine, while simultaneously substantially absorbing oxygen from the wine or the air space within the wine bottle..." (Column 3, lines 27-30) While advantages are summarized elsewhere in more general terms, Burns teaches the advantages specifically in column 3, lines 32-36, "The molded closure has the ability to be removed with a corkscrew without substantial expansion, crumbing or disintegration (such expansion, crumbing or disintegration either causes the wine to become generally unpalatable and/or render the molded closure unusable)."

The Office cites Burns because, "Sheller does not teach that the cork should comprise synthetic cork." The Office has further alleged that the skilled artisan in the gasket art taught by Sheller would have been motivated by color, dimensional stability, crumbling cost to substitute the material of Burns to the utility of Sheller. The presence of isolated desirable qualities for use in wine bottle stoppers is not sufficient to justify applying teachings regarding the plastic stoppers to natural cork gaskets used in the machinery taught by Sheller. **Burns teaches resistance to expansion (dimensional stability) and to crumbling ONLY in the context of encountering a corkscrew.** Applicant respectfully submits that achieving consistent color is hardly an issue for gaskets in machinery. Furthermore, coating all surfaces as taught in Sheller should obviate any color inconsistency problems. Relative costs disclosed by Burns are for wine quality uncoated corks; such costs cannot be expected to apply in comparison to the aggregated cork particle gaskets of Sheller. Thus, there is no valid motivation for combining the teachings of Sheller and Burns. One skilled in the art of natural cork gaskets would not reasonably apply the teachings of Burns regarding synthetic bottle stoppers, e.g. for wine, to solve the problems faced by natural cork gaskets in hot, high pressure machines with lubricants and detergents (Sheller).

Furthermore, substitution of the material in Burns into the gaskets of Sheller is not motivated include those of different subject matter, material, environment, and problem outlined previously as the reasons it is illogical to apply the teachings of Sheller to Applicant's claimed invention. All of the reasons that Sheller is not applicable to or is not in the same field of endeavor as Applicant's claimed invention apply to Burns.

Moreover, fear of the possible effects on the materials used by Burns of temperatures and pressures as well as detergents in lubricants, to which Sheller teaches that the gaskets must be exposed, and lack of reason to believe that a coating effective for the shortcomings of natural cork would overcome completely different problems in TPE of Burns would far overcome the suggested motivations. If those reasons were not

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enough, the lack of reason to think the coating that sticks on natural cork would stick on the material of Burns would further overcome any motivation based on cost, color and crumbling or expanding when a corkscrew is used.

The latter three considerations (questions (a) regarding temperature, pressure, oil, resistance of the polymer of Burns, (b) regarding adhesion of vinylidene chloride based polymer emulsion to the TPE of Burns and (c) regarding need for or effectiveness of the coating on a TPE rather than natural cork) also show lack of reasonable expectation of success. Combinations of references require a reasonable expectation of success to show obviousness.

In line with this statutory standard, our case law provides that "the consistent criterion for determination of obviousness is whether the prior art would have suggested to one of ordinary skill in the art that this process should be carried out and would have a reasonable likelihood of success, viewed in the light of the prior art." *In re Dow Chem.*, 837 F.2d 469, 473, 5 USPQ2d 1529, 1531 (Fed. Cir. 1988). Two requirements are contained in this criterion. The first requirement is that a showing of a suggestion, teaching, or motivation to combine the prior art references is an "essential evidentiary component of an obviousness holding." *C.R. Bard, Inc. v. M3 Sys. Inc.*, 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998). ... The second requirement is that the ultimate determination of obviousness "does not require absolute predictability of success. ... All that is required is a reasonable expectation of success." *In re O'Farrell*, 853 F.2d 894, 903-904, 7 USPQ2d 1673, 1681 (Fed. Cir. 1988); see also *In re Longi*, 759 F.2d 887, 897, 225 USPQ 645, 651-52 (Fed. Cir. 1985). *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1124-25 (Fed. Cir. 2000).

The consistent criterion for determination of obviousness is whether the prior art would have suggested to one of ordinary skill in the art that this process should be carried out and would have a reasonable likelihood of success, viewed in the light of the prior art. See *Burlington Industries v. Quigg*, 822 F.2d 1581, 1583, 3 USPQ2d 1436, 1438 (Fed. Cir. 1987); *In re Hedges*, 783 F.2d 1038, 1041, 228 USPQ 685, 687 (Fed. Cir. 1986); *Orthopedic Equipment Co. v. United States*, 702 F.2d 1005, 1013, 217 USPQ 193, 200 (Fed. Cir. 1983); *In re Rinehart*, 531 F.2d 1048, 1053-54, 189 USPQ 143, 148 (CCPA 1976). Both the suggestion and the expectation of success must be founded in the prior art, not in the applicant's disclosure. *In re Dow Chemical Co.*, 837 F.2d 469, 473; 5 U.S.P.Q.2d (BNA) 1529, 1531 (Fed. Cir. 1988).

There is no reasonable expectation of success for the proposed combination of Sheller with the substitution of material from Burns, if it were made. There is no teaching or suggestion (a) that a coating of Sheller would be needed or effective on a thermoplastic elastomer such as that taught by Burns; (b) that a vinylidene chloride based coating would stick to a plastic like Burn's TPE; (c) that the TPE of Burns would stand up to the heat and pressure requirements taught by Sheller.

In the Response to Arguments of July 12, 2006, the Office alleges in the on page 8, that "The art contains a plethora of examples of coatings being applied to synthetic corks and there is nothing to suggest the coating taught in Sheller would not [be] compatible with synthetic cork." Applicant respectfully requests that citation to the "plethora of examples" be supplied according to the requirements of CFR §1.104 (d)(2). This is certainly art of which the Examiner is aware that is not known to Applicant. Applicant does not have a fair opportunity to refute nebulous unidentified art. For instance, are any of these alleged coatings also applied to natural cork? If not, there

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is no teaching that a coating appropriate for a natural cork substance is effective on a synthetic.

Also on page 8 of the Office Action of July 12, 2006, the Office states, "Synthetic corks have intentionally and specifically been designed to be used as an alternative for natural cork. Thus, the examiner maintains that the skilled artisan would have expected a synthetic cork to be suitable for the environment of Sheller..." **Applicant respectfully requests that citation to these synthetic corks be supplied according to the requirements of CFR §1.104 (d)(2).** Statements about other unidentified materials designed for different purposes, do not address the question. The question is whether the polymer taught for (designed for) use as a wine bottle cork by Burns could have been expected to be successful in the full teachings of Sheller, taken IN CONTEXT.

The combination of Sheller and Burns in the manner suggested by the Office would not result in Applicant's claimed invention if they could be combined. To "utilize the synthetic cork taught in Burns in place of the cork taught in Sheller" as proposed by the Office would have resulted in a gasket of thermoplastic elastomer (TPE). A gasket made from TPE with at least an attempted coating with Rhoplex R-9 according to the teachings of Sheller is still quite different from Applicant's claimed synthetic cork closure for a liquid container coated as claimed in Applicant's Claims 1, 3-5, 10, 11, and 13. Differences such as shape, purpose, and environment have been discussed previously.

Further differences from specific claims include the following:

- (1) Compared to Claim 1 the alleged combination is not a synthetic cork (shaped) closure, not for a liquid container, and might not be coated with a gas impermeable polymer, depending on how the Rhoplex R-9 emulsion would interact with TPE in the environment taught by Sheller. Certainly, there is nothing more substantial than the Office's allegation to indicate it would have the physical characteristics of penetration as required by Claim 1. There is no teaching of a coating dissolved in a solvent as required in Claim 1.
- (2) Compared to Claim 3, the whole gasket is coated in Sheller as compared to the coating of both ends of a cork in Claim 3. Applicant notes that the Office states on page 8 of the Office Action of July 12, 2006, "The examiner disagrees. Sheller coats two sides of the gasket taught therein utilizing rollers." Applicant respectfully notes that Sheller specifically states, at page 1, lines 82-84, "**It is important that the gaskets be completely covered with this emulsion. This may require several coats of the liquid emulsion...**" Sheller's direct statement must be his true teaching, more accurate than Office speculation. One possibility would be that emulsion from the rollers drips or is squeezed out sufficiently to cover the gasket edges. This is further evidence of a traditional gasket shape with relatively thin edges.
- (3) Compared to Claim 10, the coating compound is an **EMULSION** of an UNKNOWN acrylic-modified vinylidene chloride copolymer rather than a coating composition comprising from about 5 weight percent to about 20 weight percent of a vinylidene chloride polymer, from about 70 weight percent to about 90 weight percent of an organic solvent or blend of organic solvents and from about 5 weight percent to about 10 weight percent of a thixotropic agent. The

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claimed use of solvent is unquestionably different because an emulsion (Sheller) is not a solution. There is no teaching or suggestion of thixotropic agent in Burns or Sheller.

(4) Claims 11 and 13 are more different because solvents are specified that are good SOLVENTS for the vinylidene chloride polymers, which would, in turn, give the physical results shown in Applicant's Example 1 including penetration now specified in Applicant's Claim 1 from which these claims depend. Sheller teaches an emulsion so poorly identified that comparison with Applicant's solution cannot be tested.

Claim 3 is separately patentable because of the difference outlined previously. A gasket does not even have ends in the sense that a cork has them. Burns teaches no coatings; thus, together the references cannot teach or suggest a cork-shaped closure with both ends covered. Thus, no *prima facie* case of obviousness has been made.

Similarly, Claim 10 is separately patentable because of the difference outlined previously. It requires a gas impermeable polymer coating composition comprising from about 5 weight percent to about 20 weight percent of a vinylidene chloride polymer, from about 70 weight percent to about 90 weight percent of an organic solvent or blend of organic solvents and from about 5 weight percent to about 10 weight percent of a thixotropic agent. No teaching of an offered reference indicates that **Rhoplex R-9 or any other material described in the text of either reference reads on this or a similar composition.** The Office dismisses Claim 10 saying at the next to last line of page 8 of the July 12, 2006 Office Action, that Applicant has failed [to] demonstrate that the limitations materially affect the finished product, citing In re Thorpe regarding product by process claims. Please note that vinylidene chloride polymer and thixotropic agent will be coated onto the closure with the structural properties specified in Claim 1 as amended April 26, 2006. These cannot be dismissed as process limitations.

Claims 11-13 are separately patentable because of the difference outlined previously. They require particularly effective solvents for the vinylidene chloride compositions, thus, give physical results as shown in Applicant's Example 1. The structural significance is shown in Applicant's examples as has been explained many times in the course of this prosecution.

The Office has cited In re Thorpe, saying "The patentability of a product does not depend on its method of production. If the product in the product-by process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." This does not address the fact that the Court of Appeals for the Federal Circuit has specifically said that a **process limitation in a claim does not convert it to a product by process claim**

That a process limitation appears in a claim does not convert it to a product by process claim. ... The analysis under 35 U.S.C. § 103 for any claimed invention requires a legal determination of whether the claimed invention as a whole would have been obvious to one of ordinary skill in the art at the time it was made.
Fromson v. Advance Offset Plate, Inc., 720 F.2d 1565; 219 U.S.P.Q. 1137, (Fed. Cir. 1983).

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Product claims may be drafted to include process steps to wholly or partially define the claimed product. *In re Luck*, 476 F.2d 650, 177 USPQ 523 (CCPA 1973). To the extent that the process limitations distinguish the products over the prior art, they must be given the same consideration as traditional product characteristics. *Id.* at 525.
In re Hallman, 655 F.2d 212; 210 U.S.P.Q. 609, (CCPA 1981).

The Office says that Applicant must prove a structural result. A structural result is shown (proven) in Applicant's examples. Using solutions of vinylidene chloride to coat the synthetic corks results in penetration of the solution and, thus, the coating into the open cells of the synthetic corks and results in a coating which is difficult to remove as shown in the several samples of Applicant's Example 1. Several methods of coating were used, See Example 1. Resistance to permeation was shown in Examples 2-6. Moreover, Applicant's amendments in the response of April, 2006 are believed to have converted the implications of the alleged process limitations to explicit physical limitations regarding the solutions and their penetration into the synthetic cork closures.

It is impossible to show whether or not there is a structural difference from the proposed combination of Sheller as modified by Burns because it is impossible to make samples of the proposed combination. The "acrylic modified vinylidene chloride copolymer" of Sheller is unknown.

Applicant has not had even a single opportunity to compare Applicant's invention with the cited art because the cited art is too ill-defined in using the unusual and unexplained term "acrylic-modified vinylidene chloride polymer." That term could have numerous meanings. **An action should not be made final when this opportunity has not been afforded.** The Office has answered requests for clarification of the meaning of "acrylic-modified vinylidene chloride polymer" with the allegation that "the rejection no longer relies upon the Rhoplex R-6 polymer to read on the claimed copolymer." ANY REJECTION based on a lack of comparison between the art and Applicant's invention depends on the meaning of "acrylic-modified vinylidene chloride polymer."

Applicant has found it impossible to ascertain a meaning. Applicant has not found the term "acrylic modified vinylidene chloride polymer" in references standard in the polymer art. Applicant finds not one instance where mere copolymers of vinylidene chloride and alkyl acrylates or acrylic acid are or have been called "acrylic-modified." Furthermore "acrylic" refers to the acid form, acrylic acid; while, it is the ester form, acrylate, that is typically used as a comonomer with vinylidene chloride. Since Rhoplex R-9 was a product of Rohm and Haas, Applicant endeavored to find some acrylic modification taught by Rohm and Haas. The closest that applicants were able to find was U.S. Patent 3,678,133 teaching an acrylic modified vinyl halide polymer. The vinyl halide polymer therein is said to be acrylic modified by blending it with a composite interpolymer having a core of acrylic based elastomeric polymer and a shell of rigid thermoplastic polymer comprising at least 50 percent alkyl methacrylate monomers. (See U.S. Patent 3,678,133 column 2, lines 3 and 10-20.) Applicants found no references that associated any process or composition with a Rhoplex. **All these possibilities in the meaning of "acrylic modified vinylidene chloride copolymer" with no reason to choose any of them over the others, only confirm the**

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Impossibility of making a comparison of Applicant's claimed invention with the teachings of Sheller and Burns.

Since there is no *prima facie* case for obviousness in that the combination of references is improper and would not result in Applicant's claimed invention, Applicant has no burden of proof that would require comparative examples.

Furthermore, it is clear that all the limitations found in Claims 1, 7, 8, 10, 11 and 13 are not process limitations. Claim 1 still requires that a *synthetic cork closure for a liquid container* have at least a portion thereof *coated with a gas impermeable polymer and such that the resulting coating penetrates beyond the surface of the cork to an extent observable by light microscope when the coating is of a color different from that of the synthetic cork closure*. There has been no *prima facie* showing even of these unquestionably physical aspects, much less of the entire claim. Claim 10 also lists several coating composition limitations rather than process limitations. The polymer and thixotropic agent remain in the coating. While Claims 11 and 13 involve the use of specific solvents, they depend from Claim 10 where a specific coating composition is specified. Thus, each of these claims involves more than limitations which are alleged to be process limitations. None of these physical limitations have been taught in the references cited.

Thus, Sheller in combination with Burns does not render obvious any of Applicant's Claims. 1, 3-5, 10, 11, and 13, especially Claims 3, 10, 11 and 13 and claims dependent thereon, which are separately patentable. No *prima facie* case of obviousness has been made for any of the claims.

3. Claims 2 and 9 stand rejected under 35 U.S.C. 103(a) as obvious over Sheller in view of Burns as applied to Claims 1, 3-5, 10, 11 and 13 in further view of W096/28378 (Dewar).

The combination of Sheller, Burns and DeWar is improper and not motivated. The impropriety of combining Sheller and Burns was explained previously. DeWar, like Burns, teaches a bottle closure. Dewar teaches use of a coating of a liquid impermeable substance on a natural cork bottle closure, particularly a natural cork which is low quality or made of cork particles glued together. (Page 1, lines 12-16) The purpose is to avoid having off flavors from chemicals used to bleach the natural cork or to glue the particles of cork together. (Page 1, lines 5-11 and 15-16, respectively) Dewar teaches on page 3, at lines 3-5, "The coat(s) may only be applied to a portion of the surface of the mass of cork. For example, the coat(s) may only be applied to the face(s) of the closure that is likely to contact the contents of the container."

Sheller, the primary reference, teaches directly away from coating less than all surfaces by teaching specifically that "[i]t is important that all surfaces be completely covered with this emulsion" which may take several coats. See Sheller page 1, lines 82-86. The Office maintains that because Dewar teaches coating of one side of a cork is adequate to avoid the taste of bleach or glue from the cork in wine,

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limiting the coating of Sheller to one surface, despite Sheller's strong teaching against same, would be adequate. Those skilled in the art, when looking to modify the teachings of Sheller but with a substitution of material from Burns, would not expect to be able to ignore specific teachings of Sheller in favor of teachings regarding a barrier to bleach or glue flavors in wine. Isolated inconsistent teachings in references do not render Applicant's claims obvious.

The Office is reminded that it has long been established that:

We have noted elsewhere, as a "useful general rule," that references that teach away cannot serve to create a *prima facie* case of obviousness. *In re Gurley*, 27 F.3d 551, 553, 31 U.S.P.Q.2d 1130, 1132 (Fed. Cir. 1994).
McGinley v. Franklin Sports, Inc., 60 U.S.P.Q.2d 1001; 262 F.3d 1339, 1353 (Fed. Cir. 2001).

We agree with Heilges that the prior art as a whole must be considered. The teachings are to be viewed as they would have been viewed by one of ordinary skill. (Citations omitted) "It is impermissible within the framework of section 103 to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art." *In re Hedges*, 228 U.S.P.Q. 685, 687 (Fed. Cir. 1986).

Not only does the teaching away from coating one surface by Sheller negate the alleged motivation for combination with the teachings of DeWar to do so in a different situation, but also the teaching away negates any expectation of success. No *prima facie* case has been made.

In spite of the direct quotation of Sheller that all surfaces be coated, the Examiner maintains that only two surfaces were coated in Sheller and that reduction in costs would lead one to apply the teachings of DeWar to coat only one surface. The direct and irrefutable teachings of the reference where ALL means ALL surfaces prevail over interpretations that ALL must mean only 2 of 6 surfaces of a gasket. DeWar is a very different situation and would weaken Sheller's teaching away from coating one surface.

Even if the combination were proper, it would not result in Applicant's claimed invention. Dewar teaches the opposite of Applicant's Claim 9. Dewar optionally coats only the end in contact with the liquid (wine) to prevent flavors from the cork going into the wine. This coating of the inside end does not teach or suggest coating only the free end (outside end) of a cork as in Applicant's Claim 9. In fact, Dewar teaches away from coating the free end because that would not accomplish his purpose of protecting the wine from bleach and glue flavors from the cork. In the Office Action of July 12, 2006, page 6 the Examiner states that he cannot find any support for such a narrow interpretation of the term "free end" being the outer end of a cork. The words of the claim are "*inserting a synthetic cork closure into a container, applying onto the free end of the synthetic cork closure a coating composition comprising a vinylidene chloride polymer dissolved in a solvent and allowing the solvent to evaporate.*" The cork is said to be inserted into a container and to then have a free end onto which a coating solution can be applied. One would have great difficulty interpreting the free end to be the end in the container because it would be virtually impossible to apply the coating solution to that end and especially to allow the solvent to evaporate. Furthermore, Applicant's specification on page 1, lines 23-25 and page 5, lines 4-7, speak of the same sequence

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except that the solution is dripped onto the free end of the cork. Clearly dripping a solution on to a free end of a cork that has been inserted into a container and allowing the solvent to evaporate means that the free end is outside the container. All of these also show that the meaning of cork as used by Applicant is structural, not compositional.

Furthermore, in Claim 9, the coating comprises vinylidene chloride polymer dissolved in a solvent, which is applied to the *free end*, then the solvent is allowed to evaporate. A gasket between opposing faces in machinery could hardly be thought of as having a free end, especially an end free enough for application of a coating in a solvent or emulsion while the gasket is in place and from which solvent would evaporate. An emulsion has no solvent. So there is no solvent to evaporate. Those skilled in the art would quickly recognize structural differences between the gasket resulting from the proposed combination and Applicant's claimed closure.

Similarly, Applicant's Claim 2 requires that "only one end of the closure is coated with the gas impermeable polymer." If a gasket were thought of as having something analogous to the end of a stopper-like structure, that would be some part not in contact with solid surfaces, thus, the edges. Only coating the one edge of a gasket is *drastically* different from Sheller's teaching of the importance of coating the all gasket surfaces, even if it takes several coats. Sheller's teachings would tell anyone, skilled or unskilled, not to expect success by coating only an "end" or edge, especially the exterior edge (most analogous to a free end) to protect from lubricants and detergents inside.

Claim 9 is separately patentable because DeWar teaches coating the opposite of the cork as compared to Applicant's Claim 9 as explained previously.

Thus, Sheller in combination with Burns and DeWar does not render obvious Applicant's Claims. 2 and 9, especially Claim 9, which is separately patentable. No *prima facie* case of obviousness has been made for any of the claims.

4. Claims 6-8 stand rejected under 35 U.S.C. 103(a) as obvious over Sheller in view of Burns as applied to Claims 1, 3-5, 10, 11 and 13 in further view of Naumovitz et al (US 5, 002,989).

The combination of Sheller, Burns and Naumovitz is improper and not motivated. The impropriety of combining Sheller and Burns was outlined previously.

Naumovitz teaches a composition in powder form comprising a copolymer of vinylidene chloride, an inorganic stabilizer, an epoxidized vegetable oil, an oxidized polyolefin and a paraffin or polyethylene wax. (Column 1, line 61 through column 2, line 10. The composition is in powder form prior to extrusion. (Column 3, lines 46-47.) The composition is suitable for fabrication into blown or cast mono- and multi-layer films, rigid and flexible containers, rigid and foam sheet, tubes, pipes, rods, fibers, and various profiles. (Column 7, lines 1-4.) The films and articles are fabricated using conventional extrusion and coextrusion. (Column 6, lines 34-35.) Even the title says that the formulation is extrudable.

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The combination of Naumovitz with Sheller or Burns is unmotivated, illogical and combines art from different art areas. Naumovitz is in the field of extruded plastics, specifically starting with a powder, with no teaching or suggestion of coating, gaskets (Sheller) or bottle closures (Burns). Neither the teachings of Burns nor that of Sheller motivates combination with teachings of extruding powdered plastics into films or articles. Nor do they motivate combination on the basis of composition.

The Office notes correctly that neither Sheller nor Burns teaches "that amount of acrylic copolymer that should be incorporated into the vinylidene chloride copolymer." In fact, neither Sheller nor Burns teach a copolymer of alkyl acrylate and vinylidene chloride. There is NO TIE TO NAUMOVITZ. Sheller teaches an unidentified "acrylic modified vinylidene chloride copolymer" which has been shown previously to be very unlikely to be a copolymer of vinylidene chloride and an alkyl acrylate. The Examiner cites Sheller, page 2, line 1 to support his copolymer supposition, but IN CONTEXT that phrase says, "an emulsion acrylic modified vinylidene chloride copolymer." The phrase seems to say the copolymer (of vinylidene chloride and at least one unidentified monomer) is acrylic modified. Looking for, or reading into Sheller, a teaching of alkyl acrylate monomer in a simple copolymer with vinylidene chloride involves an assumption that can only be based on hindsight in view of Applicant's own teaching. Such hindsight is forbidden in examining patent applications.

Assumptions, combination of references, or selection and combination of elements based on hindsight in view of Applicant's specification are not permitted.

The invention must be viewed not with the blueprint drawn by the inventor, but in the state of the art that existed at the time. (Citation omitted).
Uniroyal v. Rudkin-Wiley, 5 USPQ2d 1434, 1438, (Fed. Cir. 1988).

A rejection based on section 103 must rest on a factual basis, and these facts must be interpreted without hindsight reconstruction of the invention from the prior art. ... [The Board] may not ... resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in its factual basis.

In re GPAC Inc., 57 F.3d 1573, 1582, (Fed. Cir. 1995).

[A] person having the references before him who was not cognizant of appellant's disclosure would not be informed that the problems solved by appellant ever existed. Therefore, can it be said that these references which never recognized appellant's problem would have suggested its solution? We think not....

In re Martin, 152 USPQ 610, 615, (CCPA 1967).

With NO ATTEMPT TO TIE NAUMOVITZ TO SHELTER AND/OR BURNS, the Office, in the Office Action of July 12, 2006, acknowledges that Naumovitz neither teaches nor suggests that his teachings could be applied to solution or emulsion coatings, and says that "[T]he reference was not relied upon for such a teaching. Naumovitz is only utilized to select copolymer content... to optimize barrier properties." Those skilled in the art would recognize that one does not go to art for molded or extruded articles to find coating formulations. The requirements are different to achieve desired results. Furthermore, the case law repeatedly says it is not acceptable to pick and choose tidbits out of context to reassemble Applicant's claims.

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The Office responded that coating was taught in Sheller, but the Office has relied upon the combination. The Office makes it clear on page 9 of the Office Action of July 12, 2006 that only the percentages of alkyl acrylate are to be taken from Naumovitz, but the Court of Appeals for the Federal Circuit makes it even more clear that a permissible combination of references does not involve picking and choosing only an isolated factoid from each reference while deliberately discounting the context.

As this court has stated, "virtually all [inventions] are combinations of old elements." ... Therefore an examiner may often find every element of a claimed invention in the prior art. If identification of each claimed element in the prior art were sufficient to negate patentability, very few patents would ever issue. Furthermore, rejecting patent solely by finding prior art corollaries for the claimed elements would permit an examiner to use the claimed invention itself as a blueprint for piecing together elements in the prior art to defeat the patentability of the claimed invention. Such an approach would be "an illogical and inappropriate process by which to determine patentability." (Citations omitted)
In re Rouffet, 149 F.3d 1350, 1357, (Fed. Cir. 1998).

Based upon the record before us, we are convinced that the artisan would not have found it obvious to selectively pick and choose elements or concepts from the various references so as to arrive at the claimed invention without using the claims as a guide. It is to be noted that simplicity and hindsight are not proper criteria for resolving the issue of obviousness.
Ex parte Clapp, 227 USPQ 972, 972, (USPTO Bd. of Apps. 1985).

Determination of obviousness cannot be based on the hindsight combination of components selectively culled from the prior art to fit the parameters of the patented invention. There must be a teaching or suggestion within the prior art, within the nature of the problem to be solved, or within the general knowledge of a person of ordinary skill in the field of the invention, to look to particular sources, to select particular elements, and to combine them as combined by the inventor. When the patented invention is made by combining known components to achieve a new system, the prior art must provide a suggestion or motivation to make such a combination. (Citations omitted)

Crown Operations International, Ltd. v. Solutia Inc., 289 F.3d 1367; USPQ2d 1917, 1376, (Fed. Cir. 2002).

Furthermore, there is no expectation of success in combining Naumovitz with Sheller and Burns. There is no reason to think that the teachings of Naumovitz would apply to an emulsion or solvent coating of any kind or that the barrier properties would be retained in a coating as compared to the solid objects of Naumovitz. Naumovitz teaches a powdered composition for extrusion.

Because Naumovitz's compositions are powders for extrusion, and Sheller teaches the importance of coating a natural cork gasket on all surfaces with a liquid, the references cannot be combined, with or without the substitution of the material of Burns for that of Sheller. Both motivation and expectation of success are absent.

If the references were combined one would not achieve Applicant's claimed invention. The type of extrusion taught by Naumovitz would hardly result in coating. If one imagined that some sort of coating could be achieved, at best one could imagine an extruded slab or film (Naumovitz) lying on a gasket (Sheller), this does not have a cork shape or the penetration claimed and the resulting inseparability of the coating from the

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synthetic cork (shaped) closure shown in Applicant's examples to be a feature of Applicant's claimed invention.

Claim 7 is separately patentable as distinguished from this alleged combination of references. In Claim 7, the coating process is selected from the group consisting of painting, rolling, dipping, dripping, pouring the composition containing the gas impermeable polymer onto the surface of the cork and combinations thereof. Even those with very little skill in the art, would recognize that an extrudable powder as taught by Naumovitz would result in a cork quite different from the coated cork claimed.

Claim 8 is separately patentable as distinguished from this alleged combination of references. In Claim 8, the coating process is selected from the group consisting of analox gravure coating, offset coating, pad print coating, screen coating, stencil coating, brush coating, spray coating, and combinations thereof. Again, very little skill is needed to recognize that these mostly printing or painting methods result in a thin coating, more like ink from printing than that of powder or extruded plastic from the extrusion compositions of Naumovitz.

Thus, Sheller in combination with Burns and Naumovitz does not render obvious Applicant's Claims, 6-8, especially Claims 7 and 8 which are separately and independently patentable. No *prima facie* case of obviousness has been made for any of the claims.

5. Claim 12 stands rejected under 35 U.S.C. 103(a) as obvious over Sheller in view of Burns as applied to Claims 1, 3-5, 10, 11, and 13 further in view of JP49113839A (Nippon).

Nippon, in the abstract supplied by the Office, teaches, "Colloidal silica (I) was used as thickening agent for emulsions of polymers from >1 of isoprene, vinyl chloride vinylidene chloride, styrene, acrylic acid, methacrylic acid, acrylonitrile, Me acrylate, Bu acrylate, ME methacrylate, vinyl acetate, and vinyl propionate and were added during or after the emulsion polymer."

No *prima facie* case of obviousness has been made because there is no motivation to combine Nippon with Sheller and/or Burns. There is no indication in Sheller or Burns that a thickener is needed and no indication in Nippon that it would be helpful in a situation like that of Sheller or Burns. The alleged motivation in the Office's statement, "The motivation for doing so is that silica is a known thixotropic agent" (Office Action of July 12, 2006, page 4) does not provide a reason for combination because there is no teaching or suggestion in the cited references of needing a thixotropic agent. Furthermore, the combination of Sheller and Burns has been shown to be improper previously.

In the Office Action of July 12, 2006, pages 9-10, the Office has stated, "With regards to Nippon, applicant argues there is no motivation to combine said teachings with the teachings of Sheller. The examiner respectfully disagrees. The skilled artisan would recognize the need for processing agents such as thixotropic agents when coating a

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polymer composition. Thus, the examiner maintains that the skilled artisan would have been motivated to add silica to the composition in order to improve the polymer's processability." The Office offers no basis in any cited reference for this motivation to add silica to improve processability. Motivation to combine has to be found in the references, not in Applicant's specification. The need for thixotropic agent appears to be something in the knowledge of the Examiner not substantiated by a reference, therefore, Applicant respectfully requests that a reference be provided according to the requirements of CFR §1.104 (d)(2). Furthermore, "processability" is seldom a consideration in coatings. Processability is a term typically used of polymer melts.

Again, Applicant's claims have been used with hindsight, as a roadmap to pick and choose aspects of unrelated references to try to find all the components of Applicant's claimed invention. As the cases cited previously show, this is not sufficient to build a *prima facie* case of obviousness.

There is no expectation of success. Aside from the expectations that the materials of Burns might well not work in the heat, pressure, lubricants and detergent of Sheller and might not adhere to the coating, there is no expectation that the silica of Nippon would result in thixotropic thickening of an acrylic-modified vinylidene chloride polymer. It might break the emulsion. Even if thickening occurred, there is no indication that thickening the emulsion would provide a satisfactory result. Sheller teaches that the gasket is coated by being drawn through a pool of the emulsion to ensure the entire outer surface of the article is coated. If that pool were thicker and thixotropic, there is no indication that the gasket would be coated such that every surface would be coated as Sheller teaches is necessary. Common experience teaches that a thickened emulsion can easily have so much surface tension that it pulls up, leaving uncoated portions of the gasket, especially when that gasket is a plastic one rather than natural cork. Many acrylic paints are emulsions or similar to emulsions. See <http://www.answers.com/latex&r=67> where latex is defined as "la-tex (lā'tĕks') n., 2. An emulsion of rubber or plastic globules in water, used in paints, adhesives, and various synthetic rubber products. 3. Latex paint." Envision how a latex paint (emulsion) gets thicker as it ages and beads up rather than covering a surface, especially a plastic surface like Burn's TPE.

Furthermore, the unmotivated combination of Nippon with Sheller and Burns would not lead to Applicant's claimed invention. The Office has said that the material of Burns would be substituted for the natural cork (bark) in Sheller's gaskets; that would result in a TPE gasket. Sheller's coating method involves an emulsion of the unidentified substance "acrylic modified vinylidene chloride polymer." A plastic (TPE) gasket possibly coated, possibly unevenly coated, with an emulsion, is **not the same as** or closely similar to Applicant's claimed synthetic cork (shape) closure for liquid containers coated with a SOLUTION of the specified composition comprising from about 5 weight percent to about 20 weight percent of a vinylidene chloride polymer, from about 70 weight percent to about 90 weight percent of an organic solvent or blend of organic solvents and from about 5 weight percent to about 10 weight percent of a thixotropic agent (from Claim 10 from which Claim 12 depends) selected from fumed silica, kaopolite, bentonite, talc and mixtures thereof. Applicant's examples show the

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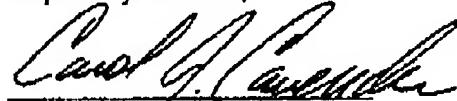
physical results of using a solution, and Applicant's amended claims specify the result of penetration of the coating into the synthetic cork closure.

Furthermore, there has been no showing that fumed silica (Applicant's Claim 12) is equivalent to colloidal silica taught in Nippon. Applicants again respectfully request that if such an equivalence is true that a reference be provided according to the requirements of CFR §1.104 (d)(2).

Thus, Sheller in combination with Burns and Nippon does not render obvious Applicant's Claim 12. No prima facie case of obviousness has been made for the claim.

Thus, since no prima facie case of obviousness has been made regarding any of Applicant's claims, Claims 1-13 are patentable. Applicant respectfully requests allowance of Claims 1-13 at the Office's earliest convenience.

Respectfully submitted,



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